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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,119	06/10/2002	Mark Alan Hollis	27795-00028USPX	9073

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EXAMINER	
WONG, WARNER	

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 10/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/089,119	HOLLIS ET AL.	
	Examiner	Art Unit	
	Warner Wong	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 September 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18 and 20-28* is/are pending in the application.

4a) Of the above claim(s) *19,29 and 30* is/are withdrawn from consideration.

5)☒ Claim(s) *20-25* is/are allowed.

6)☒ Claim(s) *1-18 and 26-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claim 1-2, 4-7, 11 and 14-17 is rejected under 35 U.S.C. 102(e) as being anticipated by Caves (US 6,434,151).

Regarding claims 1 and 16, Caves teaches describes a telecommunication system having a first network based on a first technology (fig. 1 & col. 5, line 4, 64kbps calls from PSTN) and a second network based on a second technology (fig. 1, IWF 12 & ATM (core) network 11), the second network in communication with the first network;

a message encoding format profile functionality adapted to enable transport of encoded information along at least a portion of a path of communication established between the networks (col. 5, lines 5-7 & table 2, IWF transports individual 64kbps encoded voice calls across the intermediate ATM network according to the profile listed in table 2, col. 7, lines 45-59), the profile functionality including:

mapping means for mapping the encoded information from a first message having a first message encoding format to a second message having a second message encoding format (fig. 1 & table 2, col. 45-59, the ingress 64kbps encoded

voice calls are individually mapped to the a second format defined by the particular algorithm listed in table 2), wherein the mapping is performed in accordance with the following steps:

a) determining message User-to-user Indication information (abstract & col. 4, lines 24-28);

b) determining message Length Indicator information (abstract & col. 4, lines 24-28);

c) selecting a message encoding format based on the determination of a) and b), above (abstract & col. 4, lines 24-28);

message creation means for creating the second message having a message encoding format in accordance with the encoding format selected in c) (col. 5, lines 5-9 & table 2, individual calls (messages) are encoded based on particular encoding algorithm to become a new (second) message to be transported).

Regarding claims 2 and 17, Caves teaches that mapping is based on logical mapping (fig. 3, mapping is based on the logical mapping of CPS packet as shown).

Regarding claim 4, Caves describes that the second network is an ATM core network ((fig. 1 ATM (core) network 11).

Regarding claim 5, Caves further describes that the ATM network includes an AAL2 Adaptation layer (col. 5, lines 9-11, AAL2 cells across the ATM network).

Regarding claim 6, Caves further describes that the AAL2 adaptation layer includes an I.366.2 Service Specific Convergence Sublayer SSCS (fig. 2, where ATM AAL2 layer cells includes the standardized I.366.2 SSCS sublayer, col. 2, line 65)

Regarding claim 7, Caves further describes that the first network is an access network (fig. 1, the PLMN (access network) accessing the ATM [core] network 11)).

Regarding claim 11, Caves further describes that the message encoding format profile functionality is located in a node of the core network (fig. 1 & col. 5, lines 5-8, the IWU 12 is considered a node within the ATM (core) network 11 performing encoding based on the profile of table 2).

Regarding claim 14, Caves describes a telecommunication system including the message encoding format profile functionality as claimed 1 (table 2, col. 45-59, profile used by the telecommunication system of fig. 1).

Regarding claim 15, Caves further describes a third network in communication with the second network, and wherein the message encoding format profile functionality is adapted to enable transport of encoded information along at least a portion of a path of communication established between the first and third network (fig. 1, another PSTN (third network) connecting to the egress IWU 12b which transports and decodes the individual voice calls based on the table 2 profile specified by table 2, col. 45-59).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. **Claims 3 and 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Caves in view of Subbiah (US 6,717,948).

Regarding claims 3 and 18, Caves fails to describe that logical mapping includes bit stuffing.

Subbiah describes that logical mapping includes bit stuffing (col. 5, lines 59, where unused bytes 342 (bit stuffing) is deployed).

It would have been obvious to one with ordinary skill or art at the time of invention by applicant to describe using bit stuffing for mapping means as in Subbiah to map ingress packets to one of the particular packet lengths so that they may be encoded with a corresponding algorithm as described by table 2 of Caves.

The motivation for combining the teaching is that such a method supports low bit rate and delay sensitive applications [on top of non-delay sensitive/data applications] in an ATM environment (col. 2, lines 51-54).

3. **Claim 8-10, 12-13 and 26-28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Caves in view of Oestreich (US 6,349,197).

Regarding claim 8, Caves exemplifies the first network as the PSTN (col. 5, lines 3-5), but fails to exemplify that the first network is a radio access network.

Oestreich describes that the first network is a radio access network (fig. 1, BSS = radio access network).

It would have been obvious to one with ordinary skill in the art at the time of invention by applicant to specify that the first network is a radio access network as in Oestreich for the telecommunication system of Caves.

The motivation for combining the teaching is that it provides an improved method of voice encoding algorithm in a (any wire or wireless) telecommunication system transmitting between a transmitter station and a receiver station (Caves, col. 2, 37-44).

Regarding claim 9, Caves exemplifies the first network as the PSTN (col. 5, lines 3-5), but fails to exemplify that the first network is a UMTS access network.

Oestreich describes that the first network is a UMTS access network (fig. 1, BSS = radio access network of third generation UMTS, col. 1, line 60 & col. 4, lines 3-5).

It would have been obvious to one with ordinary skill in the art at the time of invention by applicant to specify that the first network is a UMTS access network as in Oestreich for the telecommunication system of Caves.

The motivation for combining the teaching is that it provides an improved method of voice encoding algorithm in a (any wire or wireless) telecommunication system transmitting between a transmitter station and a receiver station (Caves, col. 2, 37-44).

Regarding claim 10, Caves exemplifies the first network as the PSTN (col. 5, lines 3-5), but fails to exemplify that the first network is a PLMN.

Oestreich describes that the first network is a PLMN (fig. 1, a PLMN).

It would have been obvious to one with ordinary skill in the art at the time of invention by applicant to specify that the first network is a PLMN as in Oestreich for the telecommunication system of Caves.

The motivation for combining the teaching is that it provides an improved method of voice encoding algorithm in a (any wire or wireless) telecommunication system transmitting between a transmitter station and a receiver station (Caves, col. 2, 37-44).

Regarding claim 12, Caves describes that a core network (fig. 1, comprising IWU 12 & the ATM network 11), but fails to further describe that the node is a UMSC of the core network.

Oestreich describes that the core network node can be a UMTS MSC (fig. 1, MSC exchange as the core network and of third generation UMTS, col. 1, line 60 & col. 4, lines 3-5).

It would have been obvious to one with ordinary skill in the art at the time of invention by applicant to specify that the node(s) in the core network of Cave be a UMSC as in Oestreich.

The motivation for combining the teaching is that it provides an improved method of voice encoding algorithm in a (any wire or wireless) telecommunication system transmitting between a transmitter station and a receiver station (Caves, col. 2, 37-44).

Regarding claim 13, Caves fail to describe that the encoded information is AMR codec encoded information.

Oestreich describes that the encoded information is AMR codec encoded information (col. 6, lines 60-63, where AMR is used in speech (information) encoding).

It would have been obvious to one with ordinary skill or art at the time of invention by applicant to describe the use of AMR for encoding information as by Oestreich for the combined functionality of Caves.

The motivation for combining the teachings is that it provides an improved speech quality to the listener (col. 6, lines 60-63).

Regarding claim 26, Caves describes a method of transporting encoded speech information to and from a first endpoint in an access network across an ATM core network, said access network being connected to said core network via first telecommunications node (col. 5, lines 5-7 & table 2, IWF transports individual 64kbps encoded voice calls across the intermediate ATM network according to the profile listed in table 2, col. 7, lines 45-59), the method comprising:

(b) transmitting encoded packets to said first telecommunications node (col. 5, lines 5-7, IWF transports individual 64kbps encoded voice calls are transmitted from the access network to the IWU 12a (first telecommunications node));

(c) mapping the contents of said encoded packets at said first telecommunications node into an ATM Convergence Sublayer Protocol Data Unit (col. 5, lines 5-12, the IWU encodes (maps) the digitized calls according using a selected algorithm listed in table 2 and adapts the voice streams on to an AAL2 connection where AAL2 has the ATM SSCS);

(d) transmitting said ATM Convergence Sublayer Protocol Data Unit across said core network to said second telecommunications node (col. 5, lines 8-11, AAL2 packets with SSCS are transmitted across the core network of fig. 1 to the egress IWU 12b);

(e) reconstructing the encoded packet from said ATM Convergence Sublayer Protocol Data Unit at a second telecommunications node (fig. 1 & col. 5, lines 8-11, at

the egress IWU 12b, the voice stream in AAL2 packets containing SSCS is decoded (reconstructed) to 64K digitized voice calls);

Caves fails to describe:

(a) generating and transmitting an AMR encoded packet at said first endpoint from a digitized speech signal and reconstructing AMR encoded packet at the second endpoint.

Oestreich describes:

(a) generating and transmitting an AMR encoded packet at said first endpoint from a digitized speech signal and reconstructing AMR encoded packet at the second endpoint (fig. 6 & col. 6, lines 60-63, where the originating Mobile Station (MS) encode the speech transmission using AMR and which will be decoded at the destination MS);

It would have been obvious to one with ordinary skill or art at the time of invention by applicant to describe the use of AMR for encoding information as by Oestreich for the functionality of Caves.

The motivation for combining the teachings is that it provides an improved speech quality to the listener (col. 6, lines 60-63).

Regarding claim 27, Caves describes a telecommunications system including:

one or more access networks connected to an ATM core network (col. 5, line 3, PSTN as access networks to from core network of fig. 1);

a first endpoint in communication with said core network via said a first of said access networks (fig. 1, an individual voice caller (first endpoint) in communication);

and first and second telecommunications nodes both of which are within or at interfaces to said ATM core network (fig. 1, IWUs 12a & 12b); wherein

said first telecommunications node acts to map the encoded packet into an ATM Convergence Sublayer Protocol Data Unit and transmits said ATM Convergence Sublayer Protocol Data Unit across said core network to said second telecommunications node for reconstruction of said encoded packet (col. 5, lines 5-12, the IWU 12a (fist telecommunication node) encodes (maps) to profile's algorithm the digitized calls packets according using a selected algorithm listed in table 2 and adapts the voice streams on to an AAL2 connection containing ATM SSCS, and transmitting across the ATM network to IWU 12b (second communication node);

Caves fails to specifically describe:

said first endpoint acts to generate an AMR encoded packet at said first endpoint from a digitized speech signal and transmits said AMR encoded packet to said first telecommunications node.

Oestreich describes:

first endpoint acts to generate an AMR encoded packet at said first endpoint from a digitized speech signal and transmits said AMR encoded packet to said first telecommunications node (fig. 6 & col. 6, lines 60-63, where the MS (first endpoint) sends AMR encoded speech to the BSS (first telecommunication node)).

It would have been obvious to one with ordinary skill or art at the time of invention by applicant to describe the use of AMR for encoding information as by Oestreich for the functionality of Caves.

The motivation for combining the teachings is that it provides an improved speech quality to the listener (col. 6, lines 60-63).

Regarding claim 28, Caves describes a first telecommunications node for use in a telecommunications system including one or more access networks connected to an ATM core network, a first endpoint in communication with said core network via a first of said access networks, and a second telecommunications node, said first and second telecommunications nodes both being within or at interfaces to said ATM core network (col. 5, line 3, PSTN as access networks with individual voice callers (endpoints) to/from ATM core network of fig. 1 via first and second IWU 12a & 12b (communication nodes)), wherein said first telecommunications node includes:

processing means to map the contents of said encoded speech packet into an ATM Convergence Sublayer Protocol Data Unit (col. 5, lines 5-12, the IWU 12a encodes (maps) to profile's algorithm the digitized calls packets according using a selected algorithm listed in table 2 and adapts the voice streams on to an AAL2 connection containing ATM SSCS, and transmitting across the ATM network to IWU 12b (second communication node);

transmission means to transmit said ATM Convergence Sublayer Protocol

Data Unit across said core network to said second telecommunications node (col. 5, lines 5-12, IWU 12a transmitting AAL2 connection containing ATM SSCS across the ATM network to IWU 12b (second communication node);

Caves fails to describe that the first endpoint generates an AMR encoded packet for transmission.

Oestreich describes:

the first endpoint generates an AMR encoded packet for transmission.

It would have been obvious to one with ordinary skill or art at the time of invention by applicant to describe the use of AMR for encoding information as by Oestreich for the functionality of Caves.

The motivation for combining the teachings is that it provides an improved speech quality to the listener (col. 6, lines 60-63).

Allowable Subject Matter

4. Claims 20-25 allowed.

The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to describe a mapping means wherein the mapping is performed specifically in accordance the description outline in table 2 of the specification.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lancelot (US 6,026,086) and Lim (US 6,801,508).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Warner Wong whose telephone number is 571-272-8197. The examiner can normally be reached on 6:30AM - 3:00PM, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Warner Wong
Examiner
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